

STATE OF CALIFORNIA

Energy Resources Conservation
and Development Commission

In the Matter of:

Application for Certification
For the Genesis Solar Energy Project

)
) Docket No. 09-AFC-8

)
) August 2, 2010

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STAFF'S REPLY BRIEF

to Applicant's Opening Brief, and
to CURE's First Opening Brief

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INTRODUCTION

On July 26, 2010, Staff and Applicant filed opening briefs regarding issues raised at the first round of Evidentiary Hearings for the Genesis Solar Energy Project ("Genesis Project"), held on July 12 and 13, 2010. On the same day, Intervenor California Unions for Reliable Energy ("CURE") filed its First Opening Brief on issues regarding Biological Resources, Hazardous Materials, and Waste Management.

Staff's reply to Applicant, as well as staff's reply to CURE's First Opening Brief, are contained below in a single document. Staff responds to all issues except for those concerning Soil and Water, raised by the Applicant in its Opening Brief and also by CURE in its Second Opening Brief (filed July 27, 2010). As staff largely agrees with the Applicant on these issues, staff will reply to CURE's Second Opening Brief on that due date of August 3, 2010.

DISCUSSION

I. REPLY TO APPLICANT'S OPENING BRIEF

A. Staff Correctly Concluded Cumulative Impacts to Visual Resources and Land Use would be Significant and Unmitigable

Staff's Opening Brief thoroughly explained the rationale behind the conclusions of cumulative and unmitigable impacts for Visual Resources and Land Use. Applicant seems to believe that repeating the incorrect assertion that there are no cumulatively "significant" impacts makes it so. Applicant cannot simply wish these impacts away.

1. Visual Resources

As explained in Staff's Opening Brief, Applicant witness Merlyn Paulsen's cumulative analysis was based on a faulty premise that, if a project's impacts are less than significant, its cumulative impacts are therefore less than significant. The proper question is whether the project's contribution is "cumulatively considerable" given past, present, and reasonably foreseeable future projects. (Staff's Opening Brief, July 26, 2010, pp. 1-3.)

Staff contends that the proposed tie line alone, as seen by high numbers of viewers on Highway I-10 and Wiley's Well Rest Area, is a cumulatively considerable impact on visual resources in the Chuckwalla Valley. (Exhibit 400, Revised Staff Assessment ("RSA"), C.12-16-C.12-17.) Multiple past, present, and foreseeable transmission line projects will collectively greatly degrade the visual quality of the Valley.

Staff agrees that the numbers of viewers from the Wilderness Areas near the Genesis Project site appears to be relatively low. A low number of viewers is one, but not the sole measure, of visual sensitivity, either under the Energy Commission Staff method (RSA, C.12-2-C.12-3), or under the BLM Visual Resource Management ("VRM") method. (RSA, C.12-2.) Furthermore, it is

BLM's policy that all areas within the California Desert Conservation Area have inherent scenic value and high viewer sensitivity. (RSA, C.12-7.)

Applicant makes the puzzling assertion that Staff's analysis is based completely upon the selection of Key Observation Points ("KOPs") that were rejected by BLM staff and solely represent areas where there are few or no viewers. (Applicant's Opening Brief, pp. 2-3.) This assertion is inaccurate. Staff's analysis is based on all of the KOPs selected by BLM staff, with the addition of KOPs 4a and 4b. Each KOP is analyzed independently. Further, the findings of significant cumulative impact found by staff would apply with or without the inclusion of KOPs 4A and 4B. (See Staff's Opening Brief, p. 1 (stating Visual Resources Figures 2, 3, 8a, 8b, 9a, 9b, 9c, 10a, and 10b correspond to KOPs proffered by the Applicant).)

Applicant suggests that it is appropriate to give deference to significance thresholds that BLM would perform under NEPA. Staff believes that both the baseline and impact analysis presented in the RSA would be found to be consistent with an analysis conducted under the BLM Visual Resources Management method. BLM mapping was used as the baseline for this analysis (RSA, C.12-1), and the impact thresholds applied were essentially consistent with those used under the VRM method.

In staff's opinion the Chuckwalla Valley is likely, based on existing and foreseeable projects, to become a landscape strongly affected and visually degraded by the cumulative visual effects of multiple transmission lines, to which the project will contribute for a distance of roughly one mile in the vicinity of Wiley's Well Rest Area. The Genesis project would also contribute to cumulative effects on the Chuckwalla Valley as seen from elevated viewpoints in the Chuckwalla Mountains Wilderness Areas, including access roads to developed campgrounds within the Chuckwalla Mountains. Further, staff contends that the project contributes in a similar way to a regional cumulative impact to the California desert as a whole.

2. Land Use

Under Land Use, Applicant dwells on whether Staff used BLM thresholds and tries to pit NEPA against CEQA. In doing so, Applicant raises false issues that avoid the point.

Whether Staff's analysis is done jointly with BLM, as in the Draft Environmental Impact Statement, or whether it is done separately, as in the Revised Staff Assessment/Final Environmental Impact State/Right of Way determination, the environmental analysis overall must comply with both CEQA and NEPA. The ultimate issue for Staff is whether a *California* license should be issued for a power plant on *federal* land.

Beyond that, the guiding principle of CEQA is that it should be interpreted "in such a manner to afford the fullest possible protection to the environment" within the reasonable scope of the statute. (*San Franciscans for Reasonable Growth v. City and County of San Francisco* 209 Cal.App.3d 1502, 1513 (Cal.App.1.Dist.1989) Expediency should play no part in an agency's efforts to comply with CEQA. (*San Franciscans for Reasonable Growth v. City and County of San Francisco* 151 Cal.App.3d 61, 74 -75 (Cal.App.1.Dist.1984)

Moreover, cumulative effects analysis under either statute is quite similar. For example, the CEQA definition of “cumulative effects” is “two or more individual effects which, when considered together are considerable, or which compound or increase other environmental impacts.” (Cal. Code Regs., tit. 14, § 15355); the NEPA definition of a “cumulative impact” is one that “results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions.” (40 C.F.R. § 1508.7.)

Finally, in a statement that is immaterial, Applicant states “nowhere” does Ms. Vahidi state that she undertook separate CEQA analysis. (Applicant’s Opening Brief, p. 3.) Such a statement is unnecessary as most of the Land Use section addresses CEQA impacts, consistent with the expressly named section, “CEQA Level of Significance.” (RSA, section C.6.4.3.)

B. Staff Rejects Applicant’s Request to Modify General Condition to Allow Phased-in Plans

Compliance Staff has reviewed the Applicant’s request for a change in language to the General Conditions, regarding phased plans. Staff rejects this proposed change. Staff is very concerned with the practicality of this proposal and the potential for conflict. Following is a list of concerns regarding the proposed approach:

1. Currently, Compliance Project Managers have the option to approve or disapprove submittals, based on completeness, for each aspect of the proposed project. Staff does not see the need for the proposed language change.
2. Compliance Staff already has pre-imposed timeframes for specific submittals that are imposed on all projects. Consistency between projects is paramount due to Staff’s need to have adequate time for review.
3. In order for a partial plan of development, a larger plan of development for the entire project would need to be completed. This requires an understanding of how the smaller piece will fit into the whole of the proposed project.
4. In order to avoid major changes in the actual planning and development of the project, complete sets of drawings, designs, etc. with details are required.
5. Professional engineering firms, including Chief Building Officials, will not sign off on incomplete or inaccurate plans or drawings. This would jeopardize their professional licenses.
6. Staff is in the process of developing a memorandum of understanding (MOU) with the Bureau of Land Management for the enforcement and compliance of all Energy Commission Conditions of Certification and criteria imposed by the BLM for all ARRA solar projects. The proposed approach would be in conflict with this MOU.

7. If a plan is submitted and circumstances change, Staff may approve a verification change (if the change is only to the body of the verification), or may approve a project modification pursuant to Title 20, section 1769, subdivision (a)(2), if nothing in the condition itself changes. (RSA, E-14.)

C. Staff Stipulates to Deletion of Condition of Certification WASTE-8.

In data requests, Applicant stated that the project would meet the Riverside County goal of 50 percent waste diversion from landfills. (Applicant Exhibit 11, WM-6.) Applicant later stated in testimony that the Genesis Project will not impact local landfills (Applicant Exhibit 60, Waste Management, p. 3.) No impacts to local landfills would advance the County's diversion goal.

Staff therefore agrees that the Committee may delete Condition of Certification WASTE-8, on grounds that the Genesis Project will not impact Riverside County landfills, and also because Condition of Certification WASTE-9 already requires recycling and other plans to handle all waste generated by the project. (RSA, C.13-30-C.13-31.)

Whether the County's goal is mandated or not, the Riverside County Waste Management Department requires two forms to show compliance with efforts to reach landfill diversion goals, Form B (recycling plan) and Form C (reporting). Form B is required before a building permit can be issued; the Commission's licensing permits would work in lieu of this County permit. Form C is required before a building can be occupied. This permit is issued by the Chief Building Official. (RSA, D-1.6.)

Applicant has specifically recognized Form C as an applicable LORS. (Applicant Exhibit 11, WM-6.) As Applicant states, it "requires letters and/or receipts including certified weights, for all materials and/or waste recycled, reused, composed, salvaged and/or landfilled. This information will be used to calculate the total waste generated and the final diversion weight for the Project." (*Ibid.*)

II. REPLY TO CURE'S FIRST OPENING BRIEF—BIOLOGICAL RESOURCES

A. Staff Exhaustively Examined and Correctly Evaluated the Baseline for Biological Resources.

An [environmental impact report] must include a description of the physical environmental conditions in the vicinity of the project... at the time environmental analysis is commenced, from both a local and regional perspective.... The description of the environmental setting shall be no longer than is necessary to an understanding of the significant effects of the proposed project and its alternatives.

(CEQA Guidelines, § 15125, emphasis added.) Thus while the key component of starting review, the environmental baseline is tied to understanding the impact statement. It must lead to a "meaningful assessment" of project impacts. (*Save Our Peninsula Comm. v. Monterey County Bd. of Supervisors* (6th Dist. 2001) 87 Cal.App.4th 99, 119.) A lead

agency need not detail every single fact existing on the site; irrelevant information should be omitted. (Pub. Resources Code, § 21003.) Determining baseline conditions is a process requiring judgment. Baseline descriptions should not just offer data but use analysis and explain assumptions regarding conditions on the site. (*Save Our Peninsula Comm., supra*, at p. 120.) Part of that process allows the lead agency to resolve conflicting opinions and make policy decisions, based on the evidence. (*Ibid.*)

To gather the facts and sort through them, Staff biologists, in particular Dr. Sanders and Ms. Chainey-Davis, assumed and fulfilled an awesome task. The RSA's 279-page Biological Resources section examines baseline conditions and evaluates potential impacts for the desert tortoise, Mojave fringe-toed lizards, golden eagle and other migrating birds, burrowing owl, American badger, desert kit fox, Couch's spadefoot toad, a host of special-status plants including Harwood's eriastrum, Harwood's milk-vetch; desert unicorn plant, and ribbed cryptantha, capped by 29 Conditions of Certification. Staff conducted more than 15 workshops before publication of the RSA (Executive Summary, p.8), of which Biology was the most heavily vetted topic area; only Soil & Water came close to receiving as much time on the agenda. A last informal discussion concerning Biological Resources was conducted immediately before the July 13, 2010, Evidentiary Hearing. Should the Committee tire of combing through the record, a scroll through the Documents and Reports section of the Genesis website will demonstrate the exhaustive discovery process utilized to determine what Biological Resources exist on the 1800-acre site, and more importantly for the discussion here, to reasonably address resources that were not found on the site. Staff took a very conservative approach, including and especially regarding the hard-to-find Couch's spadefoot Toad..

B. Staff Established An Accurate Baseline, and More than Sufficiently Analyzed for Potential Presence of Toad and Habitat.

CURE asserts that the RSA failed to establish an accurate baseline for Couch's spadefoot toad, and that the RSA also failed to adequately analyze and mitigate the Project's significant impacts to spadefoot toads, noting that appropriately timed surveys were never conducted.

As Staff described (RSA, C.2-38-C.2-39) and as the Applicant discussed at the Evidentiary Hearing (July 12 Transcript, p. 78-79), presence/absence surveys for spadefoot toads are not a prerequisite for an adequate impact analysis or for development of mitigation measures. Staff made the conservative assumption that this species could occur at the Project site without surveys confirming their presence because they are such a difficult species to detect.

Couch's spadefoot toads are a desert-adapted species with the remarkable ability to stay underground and dormant for as much as ten months of the year, emerging only with warm summer rains. They do not necessarily breed every year, but do so when conditions are appropriate. Breeding pools include temporary impoundments at the base of dunes as well as human created pools such as road or railroad embankments or stockpools. Currently the majority of California's known spadefoot toad breeding ponds are artificial. (RSA, C.2-38-C.2-39.)

Relatively little is known about Couch's spadefoot toads (RSA, C.2-39), but staff reviewed the available scientific literature and had several discussions with the leading expert on this species, Dr. Mark Dimmitt. Based on that consultation and other review of the literature staff concluded that potential breeding ponds were likely to be the limiting factor for the spadefoot toads, and required surveys and mitigation to focus on those breeding ponds. (*Ibid.*) Such ponds can be identified even when they are not holding water. As described by the Applicant's expert, Dr. Karl, and by staff (July 12 Transcript, pp. 78, 210) field surveys for breeding ponds were conducted in 2010, and using aerial photos staff also verified this field assessment by looking at Google Earth imagery, searching for aerial photo signatures that would be consistent with prolonged ponding.

In 1976 Couch's spadefoot toads were detected in a large borrow pit south of I-10 near the Genesis transmission line corridor, and this occurrence is described in a report prepared by Dr. Dimmitt. (RSA, C.2-38.) Mr. Mark Massar, a biologist and herpetologist for BLM who co-authored the biological resources section of the RSA, visited the same site in spring of 2010, and concurred that this site could still support spadefoot toad breeding habitat. The Applicant's expert has testified that impacts to this pond could be avoided during construction, and staff agrees with that conclusion. (C.2-156.)

As discussed during the hearing (July 12 Transcript, p. 79) other potential breeding habitat north of I-10 along the linear facility route could also likely be avoided. Staff's proposed Condition of Certification BIO-27 spells out in some detail how such avoidance would be accomplished, and also provides for compensatory mitigation if avoidance is not possible. (RSA, C.2-86-C.2-87; C.2-182, 183, 185; C.2-276-C.2-277.) Creation of new breeding ponds is a very feasible mitigation measure, as evidenced by the fact that most known spadefoot toad breeding ponds in the state currently consist of such artificial impoundments. CURE's assertion that construction of new ponds would itself create new impacts was addressed by staff during the hearings (July 12 Transcript, p. 210). Staff pointed out that any plan to create ponds would first need to be reviewed and approved by the CPM, and that review would provide staff with any opportunities to address potential impacts of pond construction to sensitive biological resources.

Staff believes that an adequate baseline survey was provided for Couch's spadefoot toad breeding habitat at the Genesis project site, with on-the-ground field surveys conducted by the Applicant and by staff, and with verification by review of aerial photography. It is staff's opinion that any impacts to spadefoot toad breeding habitat can be avoided during construction. However, in the unlikely event that construction would impact breeding habitat, staff believes that the mitigation measures described in BIO-27 would off-set any loss of breeding habitat because this is a species that has been documented breeding in stockponds and other human-created water bodies.

CURE also has inappropriately lifted statements made by staff in the RSA regarding the impacts to rare plants of constructing the Colorado River Substation and applied them to spadefoot toads. This misquote came from the subsection entitled "Reasonably Foreseeable Development Scenario: Southern California Edison Colorado River Substation." (RSA, p. C.2-124 et seq.) CURE lifts a quote out of context that applies to uncertainty associated with mitigation that Southern California Edison might implement to avoid impacts to rare plants. Staff did not have

site specific information about the exact location of the proposed expansion of the Colorado River Substation in relation to rare plants (presumably Southern California Edison would have that information, as they are the party responsible for the impact analysis and mitigation for the substation and its expansion). CURE takes a quote from that subsection about rare plant impacts potentially resulting from SCE's substation expansion as follows: "Staff does not currently have the project-specific information and therefore *cannot address the feasibility of implementing effective avoidance measures as a means of reducing significant impacts.*" and then concludes that it similarly does not have site-specific information to assess the feasibility of mitigation for spadefoot toads. On the contrary, staff believes that site-specific information is available on spadefoot toad breeding habitat on the Genesis project site, and that there is more than adequate evidence that mitigation by construction of new breeding habitat is very feasible.

C. Staff Amply Demonstrated that Proposed Mitigation for Impacts to Special Status Species will be Feasible and Effective.

CURE states that the RSA failed to show that proposed mitigation for the federal and State listed desert tortoise, as well as numerous other special-status species would be effective and feasible. The Opening Brief (p. 8-9) asserts that there is no evidence in the record that this substantial amount of privately owned acreage of equivalent or better habitat function and value for all of the impacted species is available for purchase. Staff objects that CURE improperly raises a new issue.

Had CURE raised this concern during the hearings, agency personnel available at the hearings (BLM, California Department of Fish and Game, and U.S. Fish and Wildlife Service) would have been able to describe in some detail the discussions that have regularly occurred regarding potential desert tortoise mitigation lands along the I-10 corridor. There is no question that ample private lands exist within the area depicted as targeted desert tortoise habitat (RSA, Appendix B), far more acreage than is identified as necessary to meet the land acquisition mitigation obligations described in the RSA.

CURE also asserts that staff assumes without support that whatever land is acquired will contain suitable habitat for all of the impacted species. Staff believes that is a misleading characterization of staff's discussion of mitigation in the RSA and at hearings. For many biological resources that will require compensatory mitigation lands other than desert tortoise, such as state waters, burrowing owl, Mojave fringe-toed lizard and special-status plant species, staff has explicitly identified acquisition land criteria in the appropriate condition of certification that must be met to satisfy the mitigation requirement (BIO-22 for state waters, BIO-18 for burrowing owls, BIO-20 for Mojave fringe-toed lizards, BIO-19 for special status plants). Some of those criteria may be met by acquisition of desert tortoise habitat and the project owner may be able to dovetail those mitigation lands, but if the project owner cannot, then lands for each of those resources must be secured separate from the desert tortoise acquisition.

For other resources for which there is no specific condition of certification, such as foraging habitat for golden eagles, special status bird and bat species, American badgers and desert kit fox, staff believes it is a reasonable assumption that the mitigation lands acquired for desert tortoise and desert washes will provide mitigation for these other sensitive species. As discussed

in the RSA (Exhibit 400, p. C.2-90) the targeted areas for desert tortoise mitigation are all within ten miles of nesting habitat for golden eagles, and would therefore offer appropriate mitigation for loss of foraging habitat. As the RSA also discusses (Exhibit 400, p. C.2-90-91) many of the sensitive bat and bird species potentially impacted by the Genesis project are associated with desert washes, therefore acquisition of desert dry wash woodland at a 3:1 ratio, as described in BIO-12, would mitigate for impacts to these species. For American badger and desert kit fox, these widespread desert species overlap with desert tortoise in many of their habitat requirements, and implementation of BIO-12 will also provide adequate mitigation for habitat loss for these species.

D. Staff Correctly Analyzed the Whole of the Project under CEQA.

1. Toad Ponds

Again CURE cherry picks an unlikely scenario that Staff took pains to address and tries to turn it into a threshold of significance, which it is not, for further, endless evaluation.

Look at the entire Condition of Certification BIO-27 (RSA, C.2-276-C.2-277.) *If* additional toad habitat is found to exist onsite, and *if* the existing breeding pond cannot be fully avoided, which staff expects is feasible, and *if* additional artificial ponds don't spring up with rains, the project owner may create a pond that will be mitigated and managed according to performance standards. Digging a pond in an area thoroughly evaluated already and under this extreme scenario fails to rise to a level of significance, especially for a species that has yet to be observed on the Genesis project site.

2. Fire Engines

An emergency is "a sudden, unexpected occurrence, involving a clear and imminent danger, demanding immediate action to prevent or mitigate loss of, or damage to, life, health, property, or essential public services," including fire, flood, earthquake, and riots. (Pub. Resources Code, § 21060.3.) Specific actions "necessary to prevent or mitigate an emergency," such as sending fire trucks into the Genesis project site, are exempted from CEQA requirements. (Pub. Resources Code, § 21080, sub. (b)(4).)

The idea of analyzing the impacts of fire trucks fails practically as well as legally. An analysis of impacts to biological resources resulting from emergency use of all-terrain fire engines would be so speculative as to be useless. Fire crews would tend to use the main road when possible, avoiding impacts. Predicting when the trucks could not use the road is highly speculative. Arguendo, because the applicant sought to avoid, for example, a site rich with desert tortoise, such emergency impacts would likely be low on wildlife or rare plants. Nevertheless CEQA exempts life-and-death events from environmental analysis and requires analysis based on substantial evidence, not undue speculation. (Pub. Resources Code §§ 21081.5 and 21082.2.)

III. REPLY TO CURE'S FIRST OPENING BRIEF—HAZARDOUS MATERIALS AND WASTE MANAGEMENT

A. Staff Sufficiently Analyzed and Mitigated for Significant Adverse Impacts from Potential HTF Spills.

The Genesis Project would use Therminol VP-1™ (a synthetic oil consisting of diphenyl ether and biphenyl) for the heat transfer fluid (HTF). (RSA, C.13-14.) Approximately 2.0 million gallons of Therminol VP-1™ would be present on site, including the piping and necessary expansion tanks; no additional HTF would be stored on site. There has been confusion about the amount of HTF fluid; it is 2 million gallons for the entire 250 MWs to be generated. (RSA, B.2-36, C.4-11 (C.13-14 reference should state “for both units” rather than “each unit’s” system).)

Staff requests the Committee to take notice of the Presiding Member’s Proposed Decision recently issued for the Beacon Solar Energy Project (July 20, 2010), where much of CURE’s initial concerns regarding Heat Transfer Fluid (“HTF”) were settled. The Beacon Committee noted, CURE dwelt on potential harm to workers which “were not supported by any detailed evidence of actual specific harm” (Beacon PMPD, p. 167), and that in 20 years of history at the SEGS [Solar Electric Generating Stations] facility, no workers were ever harmed by HTF. (*Ibid.*)

The Genesis Project is no different than Beacon, in that CURE continually throws frightening red herrings to alarm the Committee and exaggerates the potential dangers of an HTF spill.

CURE states that HTF “should” have been analyzed in both the Hazardous Materials and Waste Management sections of the RSA. (CURE’s Opening Brief, p. 12.) Staff indeed analyzed HTF in both sections, with additional analysis in the (Public) Health and Safety and Air Quality sections.

After careful review of the design of the Genesis Project, both in terms of preventing leaks and addressing contaminated soil, Staff concluded that management of the waste generated during construction and operation of the facility would not result in any significant adverse impacts and would comply with applicable LORS, if the waste management practices and mitigation measures proposed in the Genesis AFC and staff’s proposed conditions of certification are implemented. (RSA, C.13-31-C.13-32; see also Conditions of Certification WASTE-6 through WASTE-11.) Spills will be well-prevented though the use of additional isolation valves in the HTF pipe loops that are monitored and equipped with sensors. (RSA, C.4-8-C.4-9; HAZ-4.)

In addition, hazardous materials use at the proposed site would not present a significant impact on the public health and safety (RSA, C.5-12-C.5-17), and any potential groundwater contamination is prevented (C.9-3, C.9-53-C.9-54, C.9-84-C.9-85, SOIL&WATER-6, SOIL&WATER-20.)

1. Reasonable Forseeable Spills are Adequately Prevented and Handled.

Staff has assessed the properties of Therminol, and reviewed the record of its use at Solar Electric Generating Stations 8 and 9 at Harper Lake, California. (RSA, C. 4-8.) Staff examined past leaks, spills, and fires involving HTF. (*Ibid.*) The placement of additional

isolation valves in the HTF pipe loops throughout the solar array would add significantly to the safety and operational integrity of the entire system by allowing a loop to be closed if a leak develops in a ball joint, flex-hose, or pipe, instead of closing off the entire HTF system and shutting down the plant. Condition of Certification HAZ-4 requires the project owner to install a sufficient number of isolation valves that can be either manually or remotely activated. (RSA, C.4-20-C.4-21.) Isolation valves must be paced so as to limit any loss to the air or ground to 1250 gallons of HTF. (C.4-19.) Inspection and maintenance procedures, including daily visual inspections of the components within the entire HTF system on operating days will reduce the potential for smaller leaks that could hit the ground. Specifically, the requirement to inspect and fix leaks is provided under Condition of Certification AQ-13. (RSA, C.1-55-C.1-56.)

Additional administrative controls are required by Conditions of Certification HAZ-2: preparation of a Hazardous Materials Business Plan, a Process Safety Management Plan, and a Spill Prevention, Control, and Countermeasure Plan) and HAZ-3 (development of a Safety Management Plan). (RSA, C.4-10.)

Occasional spills of HTF from either equipment failure or human error can result in the contaminated soil. (RSA, C.13-14-C.13-15.) The HTF constituent biphenyl is listed as an extremely hazardous waste. (*Ibid.*) The question is whether a discharge of HTF has sufficient concentrations by itself be considered a hazardous waste. Condition of Certification WASTE-10 requires the project owner to submit an assessment to the CPM and the Department of Toxic Substances Control (“DTSC”) whether HTF-contaminated soil is considered hazardous or non-hazardous under state regulations. (RSA, C.13-30-C.13-31.) The Condition then describes proper disposal, if hazardous, and requirements for discharging the soil into the onsite Land Treatment Unit, if not. (*Ibid.*) Cleanup and temporary staging of HTF-contaminated soils shall be conducted in accordance with the approved Operation Waste Management Plan required in Condition of Certification of WASTE-9. (RSA, C.13-30, WASTE-10.) Those discharges are also regulated by Waste Discharge Requirements, (RSA, C.9-54; SOIL&WATER-6), and must be documented per Condition of Certification WASTE-11 (RSA, C.13-31). Spills of over 42-gallons must be reported per CERCLA. (C.13-30, WASTE-10.) The project owner shall sample HTF-contaminated soil from CERCLA-reportable incidents, in accordance with U.S. EPA test methods. (*Ibid.*)

2. Freestanding HTF Mitigated

CURE describes a scenario where HTF sits for “days” in wax-like pools. (CURE’s Opening Brief, p. 13.) HTF spills typically spread laterally on the bare ground and soak down to a relatively shallow depth. (RSA, C.13-14-C.13-15.) Most of the analysis concentrates on liquid spills, as the atmosphere at a solar plant in the desert is highly likely to be above the HTF crystallizing point of 54 degrees Fahrenheit. However, safety procedures also insure against leaks affecting air (AQ 10-13) as well as groundwater and soil (SOIL&WATER-6). The easiest form to handle, obviously, is solid HTF. As above, sufficient cleanup and disposal procedures are described in Conditions of Certification WASTE-9, 10, and 11.

3. Benzene as an HTF Degradation Product Addressed

CURE ignores the analysis that was done by staff regarding benzene. The carcinogen was analyzed in the (Public) Health and Safety section (C.5-14-C.5-18). Because one particular staff member said he not an “expert” in HTF constituents does not mean staff neglected to address its potential impacts, including benzene.

Staff uses an extremely conservative scenario to analyze potential health impacts from carcinogens. As Public Health Table 3 shows, both acute and chronic hazard indices are less than the significance level of 1.0 and cancer risk is less than the significance level of 10 in 1,000,000, indicating that no cancer or short- or long-term adverse health effects are expected. (RSA, C.5-14.)

As discussed below, staff believes that there are ample worker protections that the project owner must follow to protect workers from harmful airborne concentrations of benzene and phenol and from skin contact.

B. Conditions of Certification for HTF Spills Meet All Applicable LORS and Mitigate for All Significant Impacts.

See Conditions of Certification AQ-13, HAZ-2, HAZ-3, SOIL&WATER-6, SOIL&WATER-20, WASTE-6-WASTE-11, WORKER SAFETY-2 and WORKER SAFETY-3. Staff has properly analyzed and mitigated for impacts and ensured that the project will meet all LORS.

CURE contends that Staff’s Conditions of Certification do not provide for adequate safeguards to protect workers who respond to spills and workers who tend to contaminated soils at the Land Treatment Unit. WORKER SAFETY-2 requires a personal protective equipment program to be submitted to the Compliance Project Manager for approval. Additionally, ample LORS protect workers from all kinds of hazards. While Staff notes and describes most relevant LORS in an assessment, it is not required to list every single Cal-OSHA regulation that an employer must follow. For example, Cal-OSHA regulations addressing worker exposure to airborne contaminants require the employer to obtain and analyze representative air samples when workers may be exposed to benzene and phenol. (Cal. Code of Regs., tit. 8, § 5155.) The employer is also required to provide skin protection because benzene has a “skin notation” in that regulation, thus indicating that significant amounts of benzene could be absorbed dermally. (*Ibid.*) Furthermore, an employer must also adhere to that regulation because benzene is regulated as a carcinogen. Thus, worker exposure to benzene is highly regulated and requires airborne sampling, personal protection equipment when necessary, and provision of information and training to workers, as required by WORKER SAFETY-2 and -3. (RSA, C.14-33-C.14-34.)

Staff believes that existing regulations are more than adequate to protect workers and does not believe additional conditions of certification are warranted.

C. Staff Sufficiently Analyzed Unexploded Ordnance and Correctly Determined that Impacts are Less than Significant.

Staff believes that it is highly unlikely that unexploded ordnance would be encountered on the Genesis site and no significant risk to worker safety exists. CURE states that “substantial evidence” shows the “potential” for unexploded ordnance (“UXO”) on the Genesis Project site. (CURE’s Opening Brief, p. 18.) The evidence is hardly substantial.

By CURE’s own admission, the headquarters for maneuvers was eight miles away from the Genesis site and the “gunnery range” is vaguely in “the vicinity.” (CURE’s Opening Brief, p. 19.)

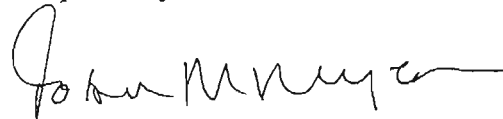
Extensive surveys already conducted on the Genesis site have not identified anything other than one spent 50 caliber bullet. (RSA, C.13-11, C.14-5.) On behalf of the Applicant, several cultural resource surveys were conducted, including three Class III pedestrian surveys. (Staff Exhibit 403, C.3-56.) A Class III survey is a continuous, intensive survey of an entire target area, aimed at locating and recording all archaeological properties that have surface indications, by walking close-interval parallel transects until the area has been thoroughly examined. (*Id.* at C.3-55.) Ground visibility during the survey was considered good, partly due to the sunny weather. (*Id.* at C.3-57.)

Biological surveys were also conducted and would require similar attention to the ground surface. (E.g, special status plant surveys, RSA, C.2-2.) To Staff’s knowledge, biologists encountered only one munition of concern--the spent 50 caliber bullet (also referred to as a cartridge). (RSA, C.13-11, C.14-5.) Bullet blanks were found in areas near the linear corridor. (Staff Exhibit 403, C.3-119, 120, 122.) Note that personnel conducting the Phase I Environmental Site Assessment indicated that while there may be a potential for unexploded ordnance to exist on the site, none was encountered. (RSA, C.13-11.) It is hard to see how another survey will truly add to existing information in a meaningful manner.

Of course, Staff wants to ensure the safety of workers with training, planning, and if necessary, more surveys. Condition of Certification WASTE-5 (RSA, C.13-28) provides for a plan to train construction workers and other site workers in the recognition of potential UXO. Also, this condition requires the project owner to prepare a work plan to recover, remove and investigate (including geophysical surveys) any UXO that is actually found.

Date: August 2, 2010

Respectfully submitted,



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California Energy Commission



BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
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APPLICATION FOR CERTIFICATION FOR THE
GENESIS SOLAR ENERGY PROJECT

Docket No. 09-AFC-8

PROOF OF SERVICE

(Revised 7/23/10)

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DECLARATION OF SERVICE

I, Rhea A. Moyer, declare that on August 2, 2010, I served and filed copies of the attached Staff's Reply Brief to Applicant's Opening and to CURE's First Opening Brief, dated August 3, 2010. The original document, filed with the Docket Unit, is accompanied by a copy of the most recent Proof of Service list, located on the web page for this project at: [http://www.energy.ca.gov/sitingcases/genesis_solar].

The documents have been sent to both the other parties in this proceeding (as shown on the Proof of Service list) and to the Commission's Docket Unit, in the following manner:

(Check all that Apply)

FOR SERVICE TO ALL OTHER PARTIES:

- ☒ sent electronically to all email addresses on the Proof of Service list;
- ☐ by personal delivery;
- ☒ by delivering on this date, for mailing with the United States Postal Service with first-class postage thereon fully prepaid, to the name and address of the person served, for mailing that same day in the ordinary course of business; that the envelope was sealed and placed for collection and mailing on that date to those addresses **NOT** marked "email preferred."

AND

FOR FILING WITH THE ENERGY COMMISSION:

- ☒ sending an original paper copy and one electronic copy, mailed and emailed respectively, to the address below (**preferred method**);

OR

- ☐ depositing in the mail an original and 12 paper copies, as follows:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 09-AFC-8
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.state.ca.us

I declare under penalty of perjury that the foregoing is true and correct, that I am employed in the county where this mailing occurred, and that I am over the age of 18 years and not a party to the proceeding.

